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DATE: 04/30/2001

PATENT APPLICATION: US/09/721,479A

TIME: 08:50:08

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**Does Not Comply  
Corrected Diskette Needed**

3 <110> APPLICANT: Coit, Doris  
4 Medina-Selby, Angelica  
5 Selby, Mark  
6 Houghton, Michael  
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10 <130> FILE REFERENCE: PP01617.002  
12 <140> CURRENT APPLICATION NUMBER: US 09/721,479A  
13 <141> CURRENT FILING DATE: 2000-11-22  
15 <160> NUMBER OF SEQ ID NOS: 19  
17 <170> SOFTWARE: PatentIn Ver. 2.0

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5516 tcaaatgtg gagaatactc ccaatgctct tatctatggg acttccggga aacacagtac 11820
5518 cgatacttcc caattcgtct tcagagctca ttgtttgttt gaagagacta atcaaaagaat 11880
5520 cgtttttctc aaaaaattaa tatcttaact gatagtttga tcaaaggggc aaaacgtagg 11940
5522 ggcaaacaaa cggaaaaatc gttttctcaa ttttctgatg ccaagaactc taaccagtot 12000
5524 tatctaaaaa ttgccttatg atccgtctct ccggttacag cctgtgtaac tgattaatcc 12060
5526 tgcctttcta atcaccattc taatgtttta attaagggat tttgtcttca ttaacggctt 12120
5528 tcgctcataa aaatgttatg acgttttgcc cgcaggcggg aaaccatcca cttcacgaga 12180
5530 ctgatctcct ctgccggaac accgggcata tccaacttat aagttggaga aataagagaa 12240
5532 tttcagattg agagaatgaa aaaaaaaaac ccttagttca taggtccatt ctcttagcgc 12300
5534 aactacagag aacaggggca caaacaggca aaaaacgggc acaacctcaa tggagtgatg 12360
5536 caacctgctt ggagtaaatg atgacacaag gcaattgacc cacgcatgta tctatctcat 12420
5538 tttcttacac cttctattac cttctgctct ctctgatttg gaaaaagctg aaaaaaaagg 12480
5540 ttgaaaccag ttccctgaaa ttattccctt acttgactaa taagtatata aagacggtag 12540
5542 gtattgattg taattctgta aatctatttc ttaaacttct taaattctac ttttatagtt 12600
5544 agtctttttt ttagttttaa aacaccaaga acttagtttc gaataaacac acataaacia 12660
5546 acaagcttac aaaacaaa atg gct gca tat gca gct cag ggc tat aag gtg 12711
5547 Met Ala Ala Tyr Ala Ala Gln Gly Tyr Lys Val
5548 1 5 10
5550 cta gta ctc aac ccc tct gtt gct gca aca ctg ggc ttt ggt gct tac 12759
5551 Leu Val Leu Asn Pro Ser Val Ala Ala Thr Leu Gly Phe Gly Ala Tyr
5552 15 20 25
5554 atg tcc aag gct cat ggg atc gat cct aac atc agg acc ggg gtg aga 12807

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Input Set : A:\seqlist.txt

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5555 Met Ser Lys Ala His Gly Ile Asp Pro Asn Ile Arg Thr Gly Val Arg
5556          30          35          40
5558 aca att acc act ggc agc ccc atc acg tac tcc acc tac ggc aag ttc 12855
5559 Thr Ile Thr Thr Gly Ser Pro Ile Thr Tyr Ser Thr Tyr Gly Lys Phe
5560          45          50          55
5562 ctt gcc gac ggc ggg tgc tcg ggg ggc gct tat gac ata ata att tgt 12903
5563 Leu Ala Asp Gly Gly Cys Ser Gly Gly Ala Tyr Asp Ile Ile Ile Cys
5564          60          65          70          75
5566 gac gag tgc cac tcc acg gat gcc aca tcc atc ttg ggc att ggc act 12951
5567 Asp Glu Cys His Ser Thr Asp Ala Thr Ser Ile Leu Gly Ile Gly Thr
5568          80          85          90
5570 gtc ctt gac caa gca gag act gcg ggg gcg aga ctg gtt gtg ctc gcc 12999
5571 Val Leu Asp Gln Ala Glu Thr Ala Gly Ala Arg Leu Val Val Leu Ala
5572          95          100          105
5574 acc gcc acc cct ccg ggc tcc gtc act gtg ccc cat ccc aac atc gag 13047
5575 Thr Ala Thr Pro Pro Gly Ser Val Thr Val Pro His Pro Asn Ile Glu
5576          110          115          120
5578 gag gtt gct ctg tcc acc acc gga gag atc cct ttt tac ggc aag gct 13095
5579 Glu Val Ala Leu Ser Thr Thr Gly Glu Ile Pro Phe Tyr Gly Lys Ala
5580          125          130          135
5582 atc ccc ctc gaa gta atc aag ggg ggg aga cat ctc atc ttc tgt cat 13143
5583 Ile Pro Leu Glu Val Ile Lys Gly Gly Arg His Leu Ile Phe Cys His
5584          140          145          150          155
5586 tca aag aag aag tgc gac gaa ctc gcc gca aag ctg gtc gca ttg ggc 13191
5587 Ser Lys Lys Lys Cys Asp Glu Leu Ala Ala Lys Leu Val Ala Leu Gly
5588          160          165          170
5590 atc aat gcc gtg gcc tac tac cgc ggt ctt gac gtg tcc gtc atc ccg 13239
5591 Ile Asn Ala Val Ala Tyr Tyr Arg Gly Leu Asp Val Ser Val Ile Pro
5592          175          180          185
5594 acc agc ggc gat gtt gtc gtc gtg gca acc gat gcc ctc atg acc ggc 13287
5595 Thr Ser Gly Asp Val Val Val Val Ala Thr Asp Ala Leu Met Thr Gly
5596          190          195          200
5598 tat acc ggc gac ttc gac tcg gtg ata gac tgc aat acg tgt gtc acc 13335
5599 Tyr Thr Gly Asp Phe Asp Ser Val Ile Asp Cys Asn Thr Cys Val Thr
5600          205          210          215
5602 cag aca gtc gat ttc agc ctt gac cct acc ttc acc att gag aca atc 13383
5603 Gln Thr Val Asp Phe Ser Leu Asp Pro Thr Phe Thr Ile Glu Thr Ile
5604          220          225          230          235
5606 acg ctc ccc caa gat gct gtc tcc cgc act caa cgt cgg ggc agg act 13431
5607 Thr Leu Pro Gln Asp Ala Val Ser Arg Thr Gln Arg Arg Gly Arg Thr
5608          240          245          250
5610 ggc agg ggg aag cca ggc atc tac aga ttt gtg gca ccg ggg gag cgc 13479
5611 Gly Arg Gly Lys Pro Gly Ile Tyr Arg Phe Val Ala Pro Gly Glu Arg
5612          255          260          265
5614 ccc tcc ggc atg ttc gac tcg tcc gtc ctc tgt gag tgc tat gac gca 13527
5615 Pro Ser Gly Met Phe Asp Ser Ser Val Leu Cys Glu Cys Tyr Asp Ala
5616          270          275          280
5618 ggc tgt gct tgg tat gag ctc acg ccc gcc gag act aca gtt agg cta 13575
5619 Gly Cys Ala Trp Tyr Glu Leu Thr Pro Ala Glu Thr Thr Val Arg Leu

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5620	285	290	295	
5622	cga gcg tac atg aac acc ccg ggg ctt ccc gtg tgc cag gac cat ctt			13623
5623	Arg Ala Tyr Met Asn Thr Pro Gly Leu Pro Val Cys Gln Asp His Leu			
5624	300	305	310	315
5626	gaa ttt tgg gag ggc gtc ttt aca ggc ctc act cat ata gat gcc cac			13671
5627	Glu Phe Trp Glu Gly Val Phe Thr Gly Leu Thr His Ile Asp Ala His			
5628		320	325	330
5630	ttt cta tcc cag aca aag cag agt ggg gag aac ctt cct tac ctg gta			13719
5631	Phe Leu Ser Gln Thr Lys Gln Ser Gly Glu Asn Leu Pro Tyr Leu Val			
5632		335	340	345
5634	gcg tac caa gcc acc gtg tgc gct agg gct caa gcc cct ccc cca tgc			13767
5635	Ala Tyr Gln Ala Thr Val Cys Ala Arg Ala Gln Ala Pro Pro Pro Ser			
5636		350	355	360
5638	tgg gac cag atg tgg aag tgt ttg att cgc ctc aag ccc acc ctc cat			13815
5639	Trp Asp Gln Met Trp Lys Cys Leu Ile Arg Leu Lys Pro Thr Leu His			
5640		365	370	375
5642	ggg cca aca ccc ctg cta tac aga ctg ggc gct gtt cag aat gaa atc			13863
5643	Gly Pro Thr Pro Leu Leu Tyr Arg Leu Gly Ala Val Gln Asn Glu Ile			
5644	380	385	390	395
5646	acc ctg acg cac cca gtc acc aaa tac atc atg aca tgc atg tgc gcc			13911
5647	Thr Leu Thr His Pro Val Thr Lys Tyr Ile Met Thr Cys Met Ser Ala			
5648		400	405	410
5650	gac ctg gag gtc gtc acg agc acc tgg gtg ctc gtt ggc ggc gtc ctg			13959
5651	Asp Leu Glu Val Val Thr Ser Thr Trp Val Leu Val Gly Gly Val Leu			
5652		415	420	425
5654	gct gct ttg gcc gcg tat tgc ctg tca aca ggc tgc gtg gtc ata gtg			14007
5655	Ala Ala Leu Ala Ala Tyr Cys Leu Ser Thr Gly Cys Val Val Ile Val			
5656		430	435	440
5658	ggc agg gtc gtc ttg tcc ggg aag ccg gca atc ata cct gac agg gaa			14055
5659	Gly Arg Val Val Leu Ser Gly Lys Pro Ala Ile Ile Pro Asp Arg Glu			
5660		445	450	455
5662	gtc ctc tac cga gag ttc gat gag atg gaa gag tgc tct cag cac tta			14103
5663	Val Leu Tyr Arg Glu Phe Asp Glu Met Glu Glu Cys Ser Gln His Leu			
5664	460	465	470	475
5666	ccg tac atc gag caa ggg atg atg ctc gcc gag cag ttc aag cag aag			14151
5667	Pro Tyr Ile Glu Gln Gly Met Met Leu Ala Glu Gln Phe Lys Gln Lys			
5668		480	485	490
5670	gcc ctc ggc ctc ctg cag acc gcg tcc cgt cag gca gag gtt atc gcc			14199
5671	Ala Leu Gly Leu Leu Gln Thr Ala Ser Arg Gln Ala Glu Val Ile Ala			
5672		495	500	505
5674	cct gct gtc cag acc aac tgg caa aaa ctc gag acc ttc tgg gcg aag			14247
5675	Pro Ala Val Gln Thr Asn Trp Gln Lys Leu Glu Thr Phe Trp Ala Lys			
5676		510	515	520
5678	cat atg tgg aac ttc atc agt ggg ata caa tac ttg gcg ggc ttg tca			14295
5679	His Met Trp Asn Phe Ile Ser Gly Ile Gln Tyr Leu Ala Gly Leu Ser			
5680		525	530	535
5682	acg ctg cct ggt aac ccc gcc att gct tca ttg atg gct ttt aca gct			14343
5683	Thr Leu Pro Gly Asn Pro Ala Ile Ala Ser Leu Met Ala Phe Thr Ala			
5684	540	545	550	555

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5686 gct gtc acc agc cca cta acc act agc caa acc ctc ctc ttc aac ata 14391
5687 Ala Val Thr Ser Pro Leu Thr Thr Ser Gln Thr Leu Leu Phe Asn Ile
5688                               560                               565                               570
5690 ttg ggg ggg tgg gtg gct gcc cag ctc gcc gcc ccc ggt gcc gct act 14439
5691 Leu Gly Gly Trp Val Ala Ala Gln Leu Ala Ala Pro Gly Ala Ala Thr
5692                               575                               580                               585
5694 gcc ttt gtg ggc gct ggc tta gct ggc gcc gcc atc ggc agt gtt gga 14487
5695 Ala Phe Val Gly Ala Gly Leu Ala Gly Ala Ala Ile Gly Ser Val Gly
5696                               590                               595                               600
5698 ctg ggg aag gtc ctc ata gac atc ctt gca ggg tat ggc gcg ggc gtg 14535
5699 Leu Gly Lys Val Leu Ile Asp Ile Leu Ala Gly Tyr Gly Ala Gly Val
5700                               605                               610                               615
5702 gcg gga gct ctt gtg gca ttc aag atc atg agc ggt gag gtc ccc tcc 14583
5703 Ala Gly Ala Leu Val Ala Phe Lys Ile Met Ser Gly Glu Val Pro Ser
5704 620                               625                               630                               635
5706 acg gag gac ctg gtc aat cta ctg ccc gcc atc ctc tcg ccc gga gcc 14631
5707 Thr Glu Asp Leu Val Asn Leu Leu Pro Ala Ile Leu Ser Pro Gly Ala
5708                               640                               645                               650
5710 ctc gta gtc ggc gtg gtc tgt gca gca ata ctg cgc cgg cac gtt ggc 14679
5711 Leu Val Val Gly Val Val Cys Ala Ala Ile Leu Arg Arg His Val Gly
5712                               655                               660                               665
5714 ccg ggc gag ggg gca gtg cag tgg atg aac cgg ctg ata gcc ttc gcc 14727
5715 Pro Gly Glu Gly Ala Val Gln Trp Met Asn Arg Leu Ile Ala Phe Ala
5716                               670                               675                               680
5718 tcc cgg ggg aac cat gtt tcc ccc acg cac tac gtg ccg gag agc gat 14775
5719 Ser Arg Gly Asn His Val Ser Pro Thr His Tyr Val Pro Glu Ser Asp
5720                               685                               690                               695
5722 gca gct gcc cgc gtc act gcc ata ctc agc agc ctc act gta acc cag 14823
5723 Ala Ala Ala Arg Val Thr Ala Ile Leu Ser Ser Leu Thr Val Thr Gln
5724 700                               705                               710                               715
5726 ctc ctg agg cga ctg cac cag tgg ata agc tcg gag tgt acc act cca 14871
5727 Leu Leu Arg Arg Leu His Gln Trp Ile Ser Ser Glu Cys Thr Thr Pro
5728                               720                               725                               730
5730 tgc tcc ggt tcc tgg cta agg gac atc tgg gac tgg ata tgc gag gtg 14919
5731 Cys Ser Gly Ser Trp Leu Arg Asp Ile Trp Asp Trp Ile Cys Glu Val
5732                               735                               740                               745
5734 ttg agc gac ttt aag acc tgg cta aaa gct aag ctc atg cca cag ctg 14967
5735 Leu Ser Asp Phe Lys Thr Trp Leu Lys Ala Lys Leu Met Pro Gln Leu
5736                               750                               755                               760
5738 cct ggg atc ccc ttt gtg tcc tgc cag cgc ggg tat aag ggg gtc tgg 15015
5739 Pro Gly Ile Pro Phe Val Ser Cys Gln Arg Gly Tyr Lys Gly Val Trp
5740                               765                               770                               775
5742 cga ggg gac ggc atc atg cac act cgc tgc cac tgt gga gct gag atc 15063
5743 Arg Gly Asp Gly Ile Met His Thr Arg Cys His Cys Gly Ala Glu Ile
5744 780                               785                               790                               795
5746 act gga cat gtc aaa aac ggg acg atg agg atc gtc ggt cct agg acc 15111
5747 Thr Gly His Val Lys Asn Gly Thr Met Arg Ile Val Gly Pro Arg Thr
5748                               800                               805                               810
5750 tgc agg aac atg tgg agt ggg acc ttc ccc att aat gcc tac acc acg 15159

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5751 Cys Arg Asn Met Trp Ser Gly Thr Phe Pro Ile Asn Ala Tyr Thr Thr
5752      815      820      825
5754 ggc ccc tgt acc ccc ctt cct gcg ccg aac tac acg ttc gcg cta tgg 15207
5755 Gly Pro Cys Thr Pro Leu Pro Ala Pro Asn Tyr Thr Phe Ala Leu Trp
5756      830      835      840
5758 agg gtg tct gca gag gaa tac gtg gag ata agg cag gtg ggg gac ttc 15255
5759 Arg Val Ser Ala Glu Glu Tyr Val Glu Ile Arg Gln Val Gly Asp Phe
5760      845      850      855
5762 cac tac gtg acg ggt atg act act gac aat ctt aaa tgc ccg tgc cag 15303
5763 His Tyr Val Thr Gly Met Thr Thr Asp Asn Leu Lys Cys Pro Cys Gln
5764 860      865      870      875
5766 gtc cca tcg ccc gaa ttt ttc aca gaa ttg gac ggg gtg cgc cta cat 15351
5767 Val Pro Ser Pro Glu Phe Phe Thr Glu Leu Asp Gly Val Arg Leu His
5768      880      885      890
5770 agg ttt gcg ccc ccc tgc aag ccc ttg ctg cgg gag gag gta tca ttc 15399
5771 Arg Phe Ala Pro Pro Cys Lys Pro Leu Leu Arg Glu Val Ser Phe
5772      895      900      905
5774 aga gta gga ctc cac gaa tac ccg gta ggg tcg caa tta cct tgc gag 15447
5775 Arg Val Gly Leu His Glu Tyr Pro Val Gly Ser Gln Leu Pro Cys Glu
5776      910      915      920
5778 ccc gaa ccg gac gtg gcc gtg ttg acg tcc atg ctc act gat ccc tcc 15495
5779 Pro Glu Pro Asp Val Ala Val Leu Thr Ser Met Leu Thr Asp Pro Ser
5780      925      930      935
5782 cat ata aca gca gag gcg gcc ggg cga agg ttg gcg agg gga tca ccc 15543
5783 His Ile Thr Ala Glu Ala Ala Gly Arg Arg Leu Ala Arg Gly Ser Pro
5784 940      945      950      955
5786 ccc tct gtg gcc agc tcc tcg gct agc cag cta tcc gct cca tct ctc 15591
5787 Pro Ser Val Ala Ser Ser Ser Ala Ser Gln Leu Ser Ala Pro Ser Leu
5788      960      965      970
5790 aag gca act tgc acc gct aac cat gac tcc cct gat gct gag ctc ata 15639
5791 Lys Ala Thr Cys Thr Ala Asn His Asp Ser Pro Asp Ala Glu Leu Ile
5792      975      980      985
5794 gag gcc aac ctc cta tgg agg cag gag atg ggc ggc aac atc acc agg 15687
5795 Glu Ala Asn Leu Leu Trp Arg Gln Glu Met Gly Gly Asn Ile Thr Arg
5796      990      995      1000
5798 gtt gag tca gaa aac aaa gtg gtg att ctg gac tcc ttc gat ccg ctt 15735
5799 Val Glu Ser Glu Asn Lys Val Val Ile Leu Asp Ser Phe Asp Pro Leu
5800      1005      1010      1015
5802 gtg gcg gag gag gac gag cgg gag atc tcc gta ccc gca gaa atc ctg 15783
5803 Val Ala Glu Glu Asp Glu Arg Glu Ile Ser Val Pro Ala Glu Ile Leu
5804 1020      1025      1030      1035
5806 cgg aag tct cgg aga ttc gcc cag gcc ctg ccc gtt tgg gcg cgg ccg 15831
5807 Arg Lys Ser Arg Arg Phe Ala Gln Ala Leu Pro Val Trp Ala Arg Pro
5808      1040      1045      1050
5810 gac tat aac ccc ccg cta gtg gag acg tgg aaa aag ccc gac tac gaa 15879
5811 Asp Tyr Asn Pro Pro Leu Val Glu Thr Trp Lys Lys Pro Asp Tyr Glu
5812      1055      1060      1065
5814 cca cct gtg gtc cat ggc tgc ccg ctt cca cct cca aag tcc cct cct 15927
5815 Pro Pro Val Val His Gly Cys Pro Leu Pro Pro Pro Lys Ser Pro Pro

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5816	1070	1075	1080	
5818	gtg cct ccg cct cgg aag aag cgg acg gtg gtc ctc act gaa tca acc	15975		
5819	Val Pro Pro Pro Arg Lys Lys Arg Thr Val Val Leu Thr Glu Ser Thr			
5820	1085	1090	1095	
5822	cta tct act gcc ttg gcc gag ctc gcc acc aga agc ttt gcc agc tcc	16023		
5823	Leu Ser Thr Ala Leu Ala Glu Leu Ala Thr Arg Ser Phe Gly Ser Ser			
5824	1100	1105	1110	1115
5826	tca act tcc gcc att acg gcc gac aat acg aca aca tcc tct gag ccc	16071		
5827	Ser Thr Ser Gly Ile Thr Gly Asp Asn Thr Thr Thr Ser Ser Glu Pro			
5828	1120	1125	1130	
5830	gcc cct tct gcc tgc ccc ccc gac tcc gac gct gag tcc tat tcc tcc	16119		
5831	Ala Pro Ser Gly Cys Pro Pro Asp Ser Asp Ala Glu Ser Tyr Ser Ser			
5832	1135	1140	1145	
5834	atg ccc ccc ctg gag ggg gag cct ggg gat ccg gat ctt agc gac ggg	16167		
5835	Met Pro Pro Leu Glu Gly Glu Pro Gly Asp Pro Asp Leu Ser Asp Gly			
5836	1150	1155	1160	
5838	tca tgg tca acg gtc agt agt gag gcc aac gcg gag gat gtc gtg tgc	16215		
5839	Ser Trp Ser Thr Val Ser Ser Glu Ala Asn Ala Glu Asp Val Val Cys			
5840	1165	1170	1175	
5842	tgc tca atg tct tac tct tgg aca ggc gca ctc gtc acc ccg tgc gcc	16263		
5843	Cys Ser Met Ser Tyr Ser Trp Thr Gly Ala Leu Val Thr Pro Cys Ala			
5844	1180	1185	1190	1195
5846	gcg gaa gaa cag aaa ctg ccc atc aat gca cta agc aac tcg ttg cta	16311		
5847	Ala Glu Glu Gln Lys Leu Pro Ile Asn Ala Leu Ser Asn Ser Leu Leu			
5848	1200	1205	1210	
5850	cgt cac cac aat ttg gtg tat tcc acc acc tca cgc agt gct tgc caa	16359		
5851	Arg His His Asn Leu Val Tyr Ser Thr Thr Ser Arg Ser Ala Cys Gln			
5852	1215	1220	1225	
5854	agg cag aag aaa gtc aca ttt gac aga ctg caa gtt ctg gac agc cat	16407		
5855	Arg Gln Lys Lys Val Thr Phe Asp Arg Leu Gln Val Leu Asp Ser His			
5856	1230	1235	1240	
5858	tac cag gac gta ctc aag gag gtt aaa gca gcg gcg tca aaa gtg aag	16455		
5859	Tyr Gln Asp Val Leu Lys Glu Val Lys Ala Ala Ala Ser Lys Val Lys			
5860	1245	1250	1255	
5862	gct aac ttg cta tcc gta gag gaa gct tgc agc ctg acg ccc cca cac	16503		
5863	Ala Asn Leu Leu Ser Val Glu Glu Ala Cys Ser Leu Thr Pro Pro His			
5864	1260	1265	1270	1275
5866	tca gcc aaa tcc aag ttt ggt tat ggg gca aaa gac gtc cgt tgc cat	16551		
5867	Ser Ala Lys Ser Lys Phe Gly Tyr Gly Ala Lys Asp Val Arg Cys His			
5868	1280	1285	1290	
5870	gcc aga aag gcc gta acc cac atc aac tcc gtg tgg aaa gac ctt ctg	16599		
5871	Ala Arg Lys Ala Val Thr His Ile Asn Ser Val Trp Lys Asp Leu Leu			
5872	1295	1300	1305	
5874	gaa gac aat gta aca cca ata gac act acc atc atg gct aag aac gag	16647		
5875	Glu Asp Asn Val Thr Pro Ile Asp Thr Thr Ile Met Ala Lys Asn Glu			
5876	1310	1315	1320	
5878	gtt ttc tgc gtt cag cct gag aag ggg ggt cgt aag cca gct cgt ctc	16695		
5879	Val Phe Cys Val Gln Pro Glu Lys Gly Gly Arg Lys Pro Ala Arg Leu			
5880	1325	1330	1335	

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5882 atc gtg ttc ccc gat ctg ggc gtg cgc gtg tgc gaa aag atg gct ttg 16743
5883 Ile Val Phe Pro Asp Leu Gly Val Arg Val Cys Glu Lys Met Ala Leu
5884 1340 1345 1350 1355
5886 tac gac gtg gtt aca aag ctc ccc ttg gcc gtg atg gga agc tcc tac 16791
5887 Tyr Asp Val Val Thr Lys Leu Pro Leu Ala Val Met Gly Ser Ser Tyr
5888 1360 1365 1370
5890 gga ttc caa tac tca cca gga cag cgg gtt gaa ttc ctc gtg caa gcg 16839
5891 Gly Phe Gln Tyr Ser Pro Gly Gln Arg Val Glu Phe Leu Val Gln Ala
5892 1375 1380 1385
5894 tgg aag tcc aag aaa acc cca atg ggg ttc tcg tat gat acc cgc tgc 16887
5895 Trp Lys Ser Lys Lys Thr Pro Met Gly Phe Ser Tyr Asp Thr Arg Cys
5896 1390 1395 1400
5898 ttt gac tcc aca gtc act gag agc gac atc cgt acg gag gag gca atc 16935
5899 Phe Asp Ser Thr Val Thr Glu Ser Asp Ile Arg Thr Glu Glu Ala Ile
5900 1405 1410 1415
5902 tac caa tgt tgt gac ctc gac ccc caa gcc cgc gtg gcc atc aag tcc 16983
5903 Tyr Gln Cys Cys Asp Leu Asp Pro Gln Ala Arg Val Ala Ile Lys Ser
5904 1420 1425 1430 1435
5906 ctc acc gag agg ctt tat gtt ggg gcc cct ctt acc aat tca agg ggg 17031
5907 Leu Thr Glu Arg Leu Tyr Val Gly Gly Pro Leu Thr Asn Ser Arg Gly
5908 1440 1445 1450
5910 gag aac tgc ggc tat cgc agg tgc cgc gcg agc ggc gta ctg aca act 17079
5911 Glu Asn Cys Gly Tyr Arg Arg Cys Arg Ala Ser Gly Val Leu Thr Thr
5912 1455 1460 1465
5914 agc tgt ggt aac acc ctc act tgc tac atc aag gcc cgc gca gcc tgt 17127
5915 Ser Cys Gly Asn Thr Leu Thr Cys Tyr Ile Lys Ala Arg Ala Ala Cys
5916 1470 1475 1480
5918 cga gcc gca ggg ctc cag gac tgc acc atg ctc gtg tgt ggc gac gac 17175
5919 Arg Ala Ala Gly Leu Gln Asp Cys Thr Met Leu Val Cys Gly Asp Asp
5920 1485 1490 1495
5922 tta gtc gtt atc tgt gaa agc gcg ggg gtc cag gag gac gcg gcg agc 17223
5923 Leu Val Val Ile Cys Glu Ser Ala Gly Val Gln Glu Asp Ala Ala Ser
5924 1500 1505 1510 1515
5926 ctg aga gcc ttc acg gag gct atg acc agg tac tcc gcc ccc cct ggg 17271
5927 Leu Arg Ala Phe Thr Glu Ala Met Thr Arg Tyr Ser Ala Pro Pro Gly
5928 1520 1525 1530
5930 gac ccc cca caa cca gaa tac gac ttg gag ctc ata aca tca tgc tcc 17319
5931 Asp Pro Pro Gln Pro Glu Tyr Asp Leu Glu Leu Ile Thr Ser Cys Ser
5932 1535 1540 1545
5934 tcc aac gtg tca gtc gcc cac gac ggc gct gga aag agg gtc tac tac 17367
5935 Ser Asn Val Ser Val Ala His Asp Gly Ala Gly Lys Arg Val Tyr Tyr
5936 1550 1555 1560
5938 ctc acc cgt gac cct aca acc ccc ctc gcg aga gct gcg tgg gag aca 17415
5939 Leu Thr Arg Asp Pro Thr Thr Pro Leu Ala Arg Ala Ala Trp Glu Thr
5940 1565 1570 1575
5942 gca aga cac act cca gtc aat tcc tgg cta ggc aac ata atc atg ttt 17463
5943 Ala Arg His Thr Pro Val Asn Ser Trp Leu Gly Asn Ile Ile Met Phe
5944 1580 1585 1590 1595
5946 gcc ccc aca ctg tgg gcg agg atg ata ctg atg acc cat ttc ttt agc 17511

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## RAW SEQUENCE LISTING

DATE: 04/30/2001

PATENT APPLICATION: US/09/721,479A

TIME: 08:50:09

Input Set : A:\seqlist.txt

Output Set: N:\CRF3\04302001\I721479A.raw

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5947 Ala Pro Thr Leu Trp Ala Arg Met Ile Leu Met Thr His Phe Phe Ser
5948          1600          1605          1610
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5951 Val Leu Ile Ala Arg Asp Gln Leu Glu Gln Ala Leu Asp Cys Glu Ile
5952          1615          1620          1625
5954 tac ggg gcc tgc tac tcc ata gaa cca ctg gat cta cct cca atc att 17607
5955 Tyr Gly Ala Cys Tyr Ser Ile Glu Pro Leu Asp Leu Pro Pro Ile Ile
5956          1630          1635          1640
5958 caa aga ctc cat ggc ctc agc gca ttt tca ctc cac agt tac tct cca 17655
5959 Gln Arg Leu His Gly Leu Ser Ala Phe Ser Leu His Ser Tyr Ser Pro
5960          1645          1650          1655
5962 ggt gaa atc aat agg gtg gcc gca tgc ctc aga aaa ctt ggg gta ccg 17703
5963 Gly Glu Ile Asn Arg Val Ala Ala Cys Leu Arg Lys Leu Gly Val Pro
5964 1660          1665          1670          1675
5966 ccc ttg cga gct tgg aga cac cgg gcc cgg agc gtc cgc gct agg ctt 17751
5967 Pro Leu Arg Ala Trp Arg His Arg Ala Arg Ser Val Arg Ala Arg Leu
5968          1680          1685          1690
5970 ctg gcc aga gga ggc agg gct gcc ata tgt ggc aag tac ctc ttc aac 17799
5971 Leu Ala Arg Gly Gly Arg Ala Ala Ile Cys Gly Lys Tyr Leu Phe Asn
5972          1695          1700          1705
5974 tgg gca gta aga aca aag ctc aaa ctc act cca ata gcg gcc gct ggc 17847
5975 Trp Ala Val Arg Thr Lys Leu Lys Leu Thr Pro Ile Ala Ala Ala Gly
5976          1710          1715          1720
5978 cag ctg gac ttg tcc ggc tgg ttc acg gct ggc tac agc ggg gga gac 17895
5979 Gln Leu Asp Leu Ser Gly Trp Phe Thr Ala Gly Tyr Ser Gly Gly Asp
5980          1725          1730          1735
5982 att tat cac agc gtg tct cat gcc cgg ccc cgc tgg atc tgg ttt tgc 17943
5983 Ile Tyr His Ser Val Ser His Ala Arg Pro Arg Trp Ile Trp Phe Cys
5984 1740          1745          1750          1755
5986 cta ctc ctg ctt gct gca ggg gta ggc atc tac ctc ctc ccc aac cga 17991
5987 Leu Leu Leu Leu Ala Ala Gly Val Gly Ile Tyr Leu Leu Pro Asn Arg
5988          1760          1765          1770
5990 atg agc acg aat cct aaa cct caa aga aag acc aaa cgt aac acc aac 18039
5991 Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn
5992          1775          1780          1785
5994 cgg cgg ccg cag gac gtc aag ttc ccg ggt ggc ggt cag atc gtt ggt 18087
5995 Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly
5996          1790          1795          1800
5998 gga gtt tac ttg ttg ccg cgc agg ggc cct aga ttg ggt gtg cgc gcg 18135
5999 Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala
6000          1805          1810          1815
6002 acg aga aag act tcc gag cgg tcg caa cct cga ggt aga cgt cag cct 18183
6003 Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro
6004 1820          1825          1830          1835
6006 atc ccc aag gct cgt cgg ccc gag ggc agg acc tgg gct cag ccc ggg 18231
6007 Ile Pro Lys Ala Arg Arg Pro Glu Gly Arg Thr Trp Ala Gln Pro Gly
6008          1840          1845          1850
6010 tac cct tgg ccc ctc tat ggc aat gag ggc tgc ggg tgg gcg gga tgg 18279
6011 Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Cys Gly Trp Ala Gly Trp

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Input Set : A:\seqlist.txt

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6012          1855          1860          1865
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6015 Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Thr Asp Pro
6016          1870          1875          1880
6018 cgg cgt agg tcg cgc aat ttg ggt aag taatagtcga ctttgttccc 18374
6019 Arg Arg Arg Ser Arg Asn Leu Gly Lys
6020          1885          1890
6022 actgtacttt tagctcgtac aaaatacaat atacttttca tttctccgta aacaacatgt 18434
6024 tttcccatgt aatatccttt tctatttttc gttccgttac caactttaca catactttat 18494
6026 atagctattc acttctatac actaaaaaac taagacaatt ttaattttgc tgcctgccat 18554
6028 atttcaattt gttataaatt cctataattt atcctattag tagctaaaaa aagatgaatg 18614
6030 tgaatcgaat cctaagagaa ttggatctga tccacaggac ggggtgtggtc gccatgatcg 18674
6032 cgtagtcgat agtggctcca agtagcgaag cgagcaggac tgggcggcgg ccaaagcggg 18734
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6038 gtaccggcat aaccaagcct atgcctacag catccagggt gacggtgccg aggatgacga 18914
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6042 aactaccgca ttaaagcttt tcttttccaa tttttttttt ttcttcatta taaaaatcat 19034
6044 tacgaccgag attcccgggt aataactgat ataattaaat tgaagctcta atttgtgagt 19094
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6048 aatatgtctc ccagcctgct tttctgtaac gttcaccctc taccttagca tcccttccct 19214
6050 ttgcaaatag tcctcttcca acaataataa tgtcagatcc ttagagagacc acatcatcca 19274
6052 cggttctata ctggtgacct aatgcgtctc ccttgctcgc taaaccaca ccgggtgtca 19334
6054 taatcaacca atcgtaacct tcatctcttc caccatgtc tctttgagca ataaagccga 19394
6056 taacaaaatc tttgtcgtc ttcgcaatgt caacagtacc cttagtatat tctccagtag 19454
6058 atagggagcc ctgcatgac aattctgcta acatcaaaag gcctctaggt tcctttgtta 19514
6060 cttcttctgc cgctgtcttc aaaccgctaa caatacctgg gccaccaca ccgtgtgcat 19574
6062 tcgtaatgtc tgcccattct gctattctgt atacaccgcg agagtactgc aatttgactg 19634
6064 tattaccaat gtcagcaaat tttctgtctt cgaagagtaa aaaattgtac ttggcggata 19694
6066 atgcctttag cggcttaact gtgccttcca tggaaaaatc agtcaagata tccacatgtg 19754
6068 tttttagtaa acaaattttg ggacctaatg cttcaactaa ctccagtaat tccttggtgg 19814
6070 tacgaacatc caatgaagca cacaagtttg tttgcttttc gtgcatgata ttaaatagct 19874
6072 tggcagcaac aggactagga tgagtagcag cagttcctt atatgtagct ttcgacatga 19934
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6076 ttcattgttc ttcaacacta catatgcgta tatataccaa tctaagtctg tgctccttcc 20054
6078 ttctgtcttc cttctgttc gagattaccg aatcaaaaaa atttcaagga aaccgaaatc 20114
E--> 6080 aaaaaaaga ataaaaaaa aatgatgaat tgaaaagctt atcgat 20160

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VERIFICATION SUMMARY

DATE: 04/30/2001

PATENT APPLICATION: US/09/721,479A

TIME: 08:50:11

Input Set : A:\seqlist.txt

Output Set: N:\CRF3\04302001\I721479A.raw

L:6080 M:252 E: No. of Seq. differs, <211>LENGTH:Input:20220 Found:20160 SEQ:12